SAFETY DATA SHEET
North American Version

AMODEL® A-11XX

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation

Product name : AMODEL® A-11XX

Product grade(s) : Amodel A-1133 HR WH 0068
Amodel A-1133 HS BK 324
Amodel A-1133 HS BK 543
Amodel A-1133 HS BU 604
Amodel A-1133 HS GY 584
Amodel A-1133 HS GY 914 DB
Amodel A-1133 HS NT
Amodel A-1133 HSOR 904 DB
Amodel A-1133 HS PK 634
Amodel A-1133 HS RD 614 DB
Amodel A-1133 NL WH 148
Amodel A-1133 NL WH 505
Amodel A-1145 HS BK 324
Amodel A-1145 HS BK 324 B6
Amodel A-1145 HS BN 575 B6
Amodel A-1145 HS GY 584
Amodel A-1145 HS NT
Amodel A-1145 HS NT B6
Amodel A-1145 L BK 324
Amodel A-1160 HSL BK 324

1.2. Use of the Substance/Preparation

Recommended use : - Plastic industry

1.3. Company/Undertaking Identification

Address : SOLVAY ADVANCED POLYMERS, LLC
4500 McGINNIS FERRY ROAD
ALPHARETTA GA 30005-3914
United States

1.4. Emergency and contact telephone numbers

Emergency telephone : **1 (800) 621-4590 [Health Information]**
1 (800) 424-9300 CHEMTREC ® (USA & Canada)
1 (800) 621-4557 [Other Product Information]
1 (770) 772-8880

2. HAZARDS IDENTIFICATION

2.1. Emergency Overview:

General Information

SOLVAY
Advanced Polymers

Appearance	:	pellets, powder
Colour	:	various colours
Odour	:	odourless

Main effects
- Hazardous decomposition products formed under fire conditions.
- Product dust may be irritating to eyes, skin and respiratory system.

2.2. Potential Health Effects:

Inhalation
- Mechanical irritation from the particulates generated by the product.
- Thermal decomposition can lead to release of hazardous gases and vapors

Eye contact
- Mechanical irritation from the particulates generated by the product.

Skin contact
- Mechanical irritation from the particulates generated by the product.

Ingestion
- Low ingestion hazard.

Other toxicity effects
- See section 11: Toxicological Information

2.3. Environmental Effects:
- See section 12: Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Polyphthalamide

CAS-No.	:	27135-32-6
Concentration	:	**>= 35.0 - <= 70.0 %**

Fiberglass

CAS-No.	:	65997-17-3
Concentration	:	**>= 33.0 - <= 46.0 %**

Carbon black

CAS-No.	:	1333-86-4
Concentration	:	**>= 0.0 - <= 1.0 %**

Titanium dioxide

CAS-No.	:	13463-67-7
Concentration	:	**>= 0.0 - <= 13.0 %**

4. FIRST AID MEASURES

4.1. Inhalation
- Remove to fresh air.
- If symptoms persist, call a physician.

4.2. Eye contact
- Flush eyes with running water for several minutes, while keeping the eyelids wide open.
- If eye irritation persists, consult a specialist.

4.3. Skin contact
- Cool skin rapidly with cold water after contact with hot polymer.
- Do not peel polymer from the skin.

- Obtain medical attention.

4.4. Ingestion

- Never give anything by mouth to an unconscious person.
- If a large amount is swallowed, get medical attention.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

- powder
- Foam
- Water
- Water spray
- Carbon dioxide (CO2)

5.2. Extinguishing media which shall not be used for safety reasons

- None.

5.3. Special exposure hazards in a fire

- Combustible material
- In a fire, the polymer melts, producing droplets which may propagate fire.
- Once started, a fire will tend to self extinguish (see section 9).
- Risk of dust explosion.
- Heating can release hazardous gases.

5.4. Hazardous decomposition products

- Carbon monoxide
- Ammonia
- Aldehydes
- Nitriles
- The release of other hazardous decomposition products is possible.

5.5. Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Fire fighters must wear fire resistant personnel protective equipment.

5.6. Other information

- Avoid dust formation.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

- Sweep up to prevent slipping hazard.
- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

- Should not be released into the environment.
- The product should not be allowed to enter drains, water courses or the soil.
- In case of accidental release or spill, immediately notify the appropriate authorities if required by Federal, State/Provincial and local laws and regulations.

6.3. Methods for cleaning up

- Sweep up and shovel into suitable containers for disposal.
- Avoid dust formation.
- Keep in properly labelled containers.

- Keep in suitable, closed containers for disposal.
- Treat recovered material as described in the section "Disposal considerations".

7. HANDLING AND STORAGE

7.1. Handling

- Take measures to prevent the build up of electrostatic charge.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Use only equipment and materials which are compatible with the product.
- To avoid thermal decomposition, do not overheat.
- Avoid prolonged or repeated contact with skin.

7.2. Storage

- Keep container closed.
- Keep away from heat and sources of ignition.

7.3. Other information

- Keep away from open flames, hot surfaces and sources of ignition.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.
- Refer to protective measures listed in sections 7 and 8.
- Do not smoke.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limit Values

Particles not otherwise specified (PNOS)

- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
  Permissible exposure limit = 5 mg/m3
  Remarks: respirable dust fraction, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
  Permissible exposure limit = 15 mg/m3
  Remarks: Total dust, All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by the Particulates Not Otherwise Regulated (PNOR) limit which is the same as the inert or nuisance dust limit of Table Z-3.
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 15 millions of particles per cubic foot of air
  Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 50 millions of particles per cubic foot of air
  Remarks: Total dust
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 5 mg/m3
  Remarks: respirable dust fraction
- US. OSHA Table Z-3 (29 CFR 1910.1000) 2000
  time weighted average = 15 mg/m3
  Remarks: Total dust
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
  time weighted average = 5 mg/m3
  Remarks: respirable dust fraction
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989

time weighted average = 15 mg/m3
Remarks: Total dust

- US. ACGIH Threshold Limit Values 2008
  time weighted average = 10 mg/m3
  Remarks: Inhalable particles.
- US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A 06 2008
  time weighted average = 15 mg/m3
  Remarks: Total dust
- US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A 06 2008
  time weighted average = 5 mg/m3
  Remarks: respirable dust fraction

Fiberglass

- US. ACGIH Threshold Limit Values 01 2006
  time weighted average = 5 mg/m3
  Remarks: Alveolar dust fraction

Carbon black

- US. ACGIH Threshold Limit Values 01 2006
  time weighted average = 3.5 mg/m3
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
  Permissible exposure limit = 3.5 mg/m3
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
  time weighted average = 3.5 mg/m3
- US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A 06 2008
  time weighted average = 3.5 mg/m3

Titanium dioxide

- US. ACGIH Threshold Limit Values 01 2006
  time weighted average = 10 mg/m3
- US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) 02 2006
  Permissible exposure limit = 15 mg/m3
  Remarks: Total dust
- US. OSHA Table Z-1-A (29 CFR 1910.1000) 1989
  time weighted average = 10 mg/m3
  Remarks: Total dust
- US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A 06 2008
  time weighted average = 10 mg/m3
  Remarks: Total dust

ACGIH® and TLV® are registered trademarks of the American Conference of Governmental Industrial Hygienists.
SAEL = Solvay Acceptable Exposure Limit, Time Weighted Average for 8 hour workdays. No Specific TLV STEL (Short Term Exposure Level) has been set. Excursions in exposure level may exceed 3 times the TLV TWA for no more than a total of 30 minutes during a workday and under no circumstances should they exceed 5 times the TLV TWA.

8.2. Engineering controls

- Provide local ventilation appropriate to the product decomposition risk (see section 10).
- Provide appropriate exhaust ventilation at places where dust is formed.
- Refer to protective measures listed in sections 7 and 8.

8.3. Personal protective equipment

8.3.1. Respiratory protection

- In case of insufficient ventilation, wear suitable respiratory equipment.
- When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
- Use only respiratory protection that conforms to international/ national standards.
- Use NIOSH approved respiratory protection.

- Respirator with combination filter for vapour/particulate (EN 141).

8.3.2. Hand protection

- For prolonged or repeated contact use protective gloves.
- When handling hot material, use heat resistant gloves.

8.3.3. Eye protection

- Safety glasses with side-shields
- Dust proof goggles, if dusty.

8.3.4. Skin and body protection

- long sleeved clothing

8.3.5. Hygiene measures

- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General Information

Appearance	:	pellets, powder
Colour	:	various colours
Odour	:	odourless

9.2. Important health safety and environmental information

pH	:	*Remarks*: not applicable
Boiling point/boiling range	:	*Remarks*: not applicable
Flash point	:	*Remarks*: not applicable
Flammability	:	*Upper explosion limit*: *Remarks*: no data available *Lower explosion limit*: *Remarks*: no data available
Explosive properties	:	*Explosion danger*: *Remarks*: Risk of dust explosion.
Vapour pressure	:	*Remarks*: not applicable
Relative density / Density	:	*Remarks*: no data available
Solubility	:	Water *Remarks*: negligible
Partition coefficient: n-octanol/water	:	*Remarks*: not applicable

9.3. Other data

Melting point/range	:	313 °C (595 °F)
Decomposition temperature	:	420 °C (788 °F) *Remarks*: Extended period of exposure (ca. 1 hour).

10. STABILITY AND REACTIVITY

10.1. Stability

- Stable under normal conditions.
- Hazardous Polymerisation/Polymerization: no

10.2. Conditions to avoid

- Heat, flames and sparks.
- To avoid thermal decomposition, do not overheat.
- Avoid dust formation.
- Avoid accumulations of molten masses of Amodel in excess of 50 lbs (22.5 kilograms), which may result in excessive pressure buildup from thermal degradation of the product.
- Keep at temperature not exceeding: 420 °C (788 °F)

10.3. Materials to avoid

- If polyacetal and polyoxymethylene resin is molded or handled in your equipment, this material can rapidly decompose at the temperatures used to process this resin. Inadvertent contamination of this resin with polyacetal resin from the material handling system of other equipment can result in a rapid, possibly violent, release of decomposition fumes when the contaminated material is brought to molding temperature. To avoid, thoroughly clean molding equipment with purging compound prior to product changeover and prevent cross contamination of material handling systems.

10.4. Hazardous decomposition products

- Carbon monoxide, Ammonia, Aldehydes, Nitriles, The release of other hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Chronic toxicity

- Remarks: This product may contain carbon black. Carbon black has been shown to cause lung tumors in rats at high exposure concentrations. These concentrations exceed the capacity of the lung to clear the carbon black particles, thus resulting in significant toxicity. The International Agency for Research on Cancer (IARC) has evaluated carbon black found it to be possibly carcinogenic to humans. (Group 2B).

Remarks

- The product is biologically inert.
- Because the components are encapsulated in the resin and may not be bioavailable in the body, they may not exert the above mentioned health effects.
- Product dust may be irritating to eyes, skin and respiratory system.
- Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.
- IARC Group 2B Carcinogen; (Titanium Dioxide)

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity effects

Acute toxicity

- Remarks: no data available

Chronic toxicity

- Remarks: no data available

12.2. Mobility

- Remarks: no data available

12.3. Persistence and degradability

Abiotic degradation
- Result: no data available

Biodegradation
- Remarks: no data available

12.4. Bioaccumulative potential
- Result: no data available

12.5. Other adverse effects
- no data available

12.6. Remarks
- The product is biologically inert.
- Ingestion of solids may cause harm to wildlife due to intestinal mechanical blockage or starvation from false feeling of satiation.

13. DISPOSAL CONSIDERATIONS

13.1. Waste from residues / unused products
- Do not dump into any sewers, on the ground, or into any body of water. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations.
- Waste characterizations and compliance with applicable laws and regulations are the responsiblity of the waste generator.

13.2. Packaging treatment
- Empty containers.
- Dispose of as unused product.
- For unused and uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device or industrial landfill.

13.3. RCRA Hazardous Waste
- Listed RCRA Hazardous Waste (40 CFR 302) - No

14. TRANSPORT INFORMATION

- Sea (IMO/IMDG)
- not regulated
- Air (ICAO/IATA)
- not regulated
- U.S. Dept of Transportation
- not regulated
- It is recommended that ERG Guide number 111 be used for all non-regulated material.
- Canadian Transportation of Dangerous Goods
- not regulated

15. REGULATORY INFORMATION

15.1. Inventory Information

Toxic Substance Control Act list (TSCA)	:	-	Listed on inventory.

EU list of existing chemical substances (EINECS)	: -	In compliance with inventory.
Japanese Existing and New Chemical Substances (MITI List) (ENCS)	: -	Listed on inventory.
Australian Inventory of Chemical Substances (AICS)	: -	Listed on inventory.
Korean Existing Chemicals List (ECL)	: -	Listed on inventory.
Canadian Domestic Substances List (DSL)	: -	Listed on inventory.
Philippine Inventory of Chemicals and Chemical Substances (PICCS)	: -	Not determined.
Inventory of Existing Chemical Substances (China) (IECS)	: -	Listed on inventory.

15.2. Other regulations

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

- not regulated.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

- not regulated.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

- not regulated.

US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components	CAS-No.	Concentration
Carbon black	1333-86-4	**>= 0.0 - <= 1.0 %**
Titanium dioxide	13463-67-7	**>= 0.0 - <= 13.0 %**

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	CAS-No.	Concentration
Carbon black	1333-86-4	**>= 0.0 - <= 1.0 %**
Titanium dioxide	13463-67-7	**>= 0.0 - <= 13.0 %**

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product contains a chemical known in the State of California to cause cancer and/or to cause birth defects or other reproductive harm. **:**

Components	CAS-No.	Concentration
Carbon black	1333-86-4	**>= 0.0 - <= 1.0 %**

16. OTHER INFORMATION

Further information

- Update
- Supersedes version dated: 03/23/2009

Material Safety Data Sheets contain country specific regulatory information; therefore, the MSDS's provided are for use only by customers of the company mentioned in section 1 in North America. If you are located in a country other than Canada, Mexico or the United States, please contact the Solvay Group company in your country for MSDS information applicable to your location. The previous information is based upon our current knowledge and experience of our product and is not exhaustive. It applies to the product as defined by the specifications. In case of combinations or mixtures, one must confirm that no new hazards are likely to exist. In any case, the user is not exempt from observing all legal, administrative and regulatory procedures relating to the product, personal hygiene, and integrity of the work environment. (Unless noted to the contrary, the technical information applies only to pure product). To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither the company mentioned in section 1 nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. The user alone must finally determine suitability of any information or material for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. This information gives typical properties only and is not to be used for specification purposes. The company mentioned in section 1 reserves the right to make additions, deletions or modifications to the information at any time without prior notification. Trademarks and/or other products of the company mentioned in section 1 referenced herein are either trademarks or registered trademarks of the company mentioned in section 1 or its affiliates, unless otherwise indicated.